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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/985,823	11/06/2001	Akiko Taira	2001_1650A	4472

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EXAMINER	
COMAS, YAHVEH	
ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/985,823	TAIRA ET AL.	
	Examiner	Art Unit	
	Yahveh Comas	2834	RLW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

P riod for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 October 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1. The objection to Figure 3 and 4 is withdrawn.
2. The objection to the drawings under 37 CFR 1.83(a) is withdrawn.
3. The rejection of claims 2 and 9 under 35 U.S.C. 112, first paragraph, are withdrawn.
4. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 10-11, 13-14, 15-16 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over P.W. Fuller U.S. Patent No. 1,071,042 in view of Onuma Koji JP Patent No. 63228941A.

Fuller discloses a casing having an inlet (17) and exhaust port (18), a plurality of motors arranged in said casing, each motor including, and a rotor (21,29 and 38) rotatably supported on said stator (20, 28 and 37) said motor being arranged such that said rotor of each of said motors rotates about common axis of rotation, a plurality of rotating members (1, 2 and 3) arranged within said casing and adjacent to each other in an axial direction along said common axis of rotation so as to share said common axis of rotation, each of said rotating member being attached to a corresponding rotor of one of said motor, and a plurality of bearings (26 and 27) rotatably supporting said rotating member so that said rotating members rotate independently. Each of said rotating members has a set of blades (15, 5 and 9) to be rotated by a corresponding one of said motors (for example column 2 lines 86-100). Fuller disclose the claimed invention except for:

- Stator having a different number of poles
- The plurality of motors includes a first motor having two-pole stator winding, a third motor having a twelve-pole stator winding, and a second motor having a six-pole winding and being arranged between said first motor and said third motor.

However, Onuma disclose the use of a stator having different number of poles in order to vary the revolution between motors. Therefore, it would have been obvious to one having skill in the art at the time the invention was made to provide a different number of poles in the stator in order to varied the number of revolutions between motors as disclose by Onuma since Fuller disclose that the pumping elements are independent from each other and are intended to rotated

at a different speeds (column 2, lines 90-110) and changing the number of poles would have been desirable to provide a difference between the revolution of said motors (Onuma Abstract).

Regarding claim 14, Onuma disclose the changing the number of poles produce a difference in the motors revolution. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a different number of poles between the motors, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).*

Regarding to claim 20, Fuller discloses that his invention relates to rotary pumps. Therefor, it would have been obvious to one having skill in the art at the time the invention was made to use the vacuum pump as a turbo-molecular pump since was know in the art that a turbo-molecular pump is a rotary pump.

4. Claim 12, 17-18, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over P.W. Fuller U.S. Patent No. 1,071,042 in view of Onuma Koji JP Patent No. 63228941A as applied in claims 10-11, 13-14, 15-16 and 19-21, and in further view of Nakano et al. U.S. Patent No. 6,429562.

Fuller, as modified above by Onuma, discloses the claimed invention except for the connecting the motors in parallel to a common power circuit. However, Nakano disclose that is possible to drive two motors independently, if the rotors have a different number of magnetic poles, by connecting coils of the two stators to an inverter in parallel (for example column 1, lines 25-30).

Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify Fuller and Onuma and connect the motors in parallel as disclose by Nakano since this would had been desirable to control the motors independently.

Regarding claim 24, Fuller, as modified above, discloses the claimed invention except for the frequency of the exciting current was 500Hz. Excitation current with a frequency is supply to the stator coils, therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an frequency of 500Hz, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).*

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yahveh Comas whose telephone number is (703) 305-3419. The examiner can normally be reached on M - F 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

YC